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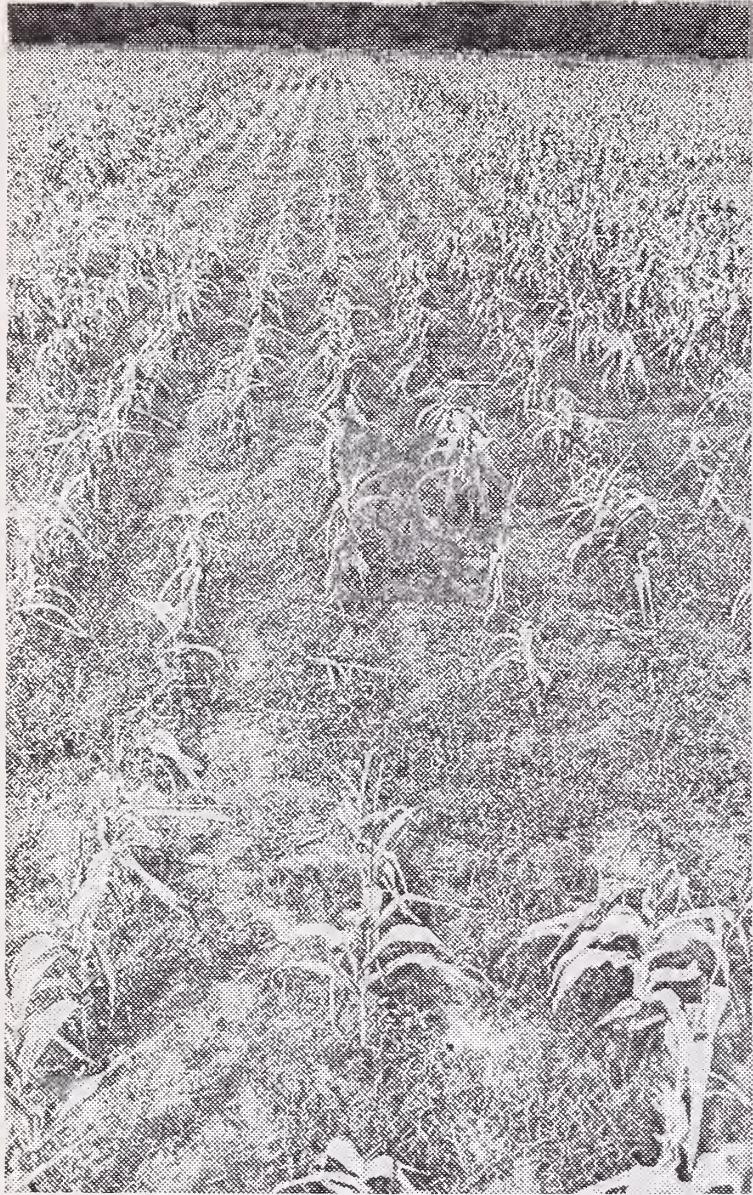
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**BEAUTY
IS
THE
BEAST**

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JUL '84

U.S. DEPT. OF AGRICULTURE
NATIONAL PEST MANAGEMENT





WITCHWEED ATTACKS CORN AND OTHER "GRASSY" CROPS!

A normal field of corn (right: 0874X1280-13) which will yield about 80 bushels per acre is contrasted with heavily witchweed infested acreage (left: 0874X1288-31). Both fields are shown near the end of the growing season. Witchweed is a parasitic plant that attacks corn and other "grassy" crops. Before the current control program began, farmers in North Carolina and South Carolina could not profitably grow corn on much of the heavily infested acreage.



ON THE COVER: Witchweed grows about 8 to 10 inches tall. It blooms with red, or sometimes yellow, flowers from mid-July to first frost. (DN-3359). The weed attaches itself to corn, sorghum, sugarcane, and similar plants with octopus-like roots that suck food and water from its host (0874X1295-7A).

One witchweed plant may produce up to 500,000 seeds in a single growing season. Seeds can lie dormant, yet viable, in the soil about six to eight years (0673A1169-13).

If a man walked in an infested Carolina field, he'd probably get witchweed seeds on his shoes or in his pant cuffs. By driving a few miles and walking in another corn field, he could spread the seeds to a new, uninfested area. In a few years, there could be another full-blown outbreak.

Eradication efforts began in 1957 under a cooperative federal/state control program. Since that time, 36 counties found infested in North Carolina and South Carolina have been reduced to 21 infested counties in North Carolina and seven in South Carolina. Witchweed has never been found outside of those two states.

*"This little weed
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It had
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but the corn
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Ralph Faulk of Evergreen, N.C. noticed crimson-colored flowers in his cornfield about 20 years ago. During that time, he witnessed his corn shrivel up as if there were a lack of water. "This little weed came up here around the corn. It had pretty red flowers on it," Faulk said. "I brought some in and showed them to my wife. I didn't know what it was until they (USDA) started calling it witchweed. We just wouldn't be able to grow corn without the witchweed eradication program." (0874X1282-21).



NOTE TO EDITORS: This Picture Story was printed using a coarse line screen and is reproducible. Magazines and newspapers may obtain 8x10 prints from the Photography Division, Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250. Specify title and number of this publication. Color slides are also available of the witchweed drawing on the cover.

Dr. Robert Eplee, supervisor of USDA's Witchweed Methods Development Laboratory in Whiteville, N.C., examines effects of the parasitic witchweed on corn. Use of equipment and new control techniques perfected by this Laboratory may, over an extended period of time, enable Carolina farmers (with state and federal help) to eradicate witchweed (0673A1173-29).



USDA scientists have found that witchweed seeds can be forced to germinate by injecting ethylene gas into the soil. If the witchweed seed germinates with no host plants present, the seedling will starve and die—suicidal germination (0673A1174-4). Ethylene gas, alone, isn't the final solution. For best results, USDA scientists use ethylene treatments in conjunction with herbicide applications and other control measures.